

REMARKS

Claims 1, 3-12 and 14-20 remain pending in the application. Claims 2 and 13 have been canceled, and claims 1, 3-7, 9 and 11 have been amended. Reconsideration of the rejection and allowance of the pending application in view of the following remarks are respectfully requested.

As an initial matter, Applicants thank the Examiner for accepting the drawings filed on July 25, 2003, acknowledging Applicants' claim for foreign priority, and receipt of the certified copy of the priority document, and considering all of the documents listed in the Information Disclosure Statement filed on October 27, 2003.

In the Office Action, the Examiner objected to claims 1 and 2 because of informalities. Applicants have amended claim 1, paying particular attention to the concerns raised by the Examiner, and have canceled claim 2. Applicants respectfully submit that the amendment of claim 1 overcomes the Examiner's objections, and respectfully request withdrawal thereof.

In the Office Action, the Examiner rejected claims 1, 3-11 and 13-20 under 35 U.S.C. §102(b) as being anticipated by D'Urso et al. (U.S. Patent No. 6,112,109). The Examiner also rejected claim 2 under 35 U.S.C. § 103(a) as being unpatentable over D'Urso et al. in view of Toth et al. (U.S. Patent No. 6,775,352). Claim 12 stands rejected under 35 U.S.C. § 103(c) as being unpatentable over D'Urso et al. in view of Barlow (U.S. Patent No. 6,540,784). Applicants respectfully traverse the rejections for at least the following reasons.

The present invention is directed towards a method for modeling an implant to be applied to a defect of a bone. The method of the present invention includes, inter alia,

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obtaining tomographic image data of the bone based on magnetic resonance imaging (MRI) measurement data. The tomographic image data is obtained by inverting a threshold value of the MRI measurement data to obtain threshold value inverting data, and extracting a bone region from the threshold value inverting data.

D'Urso is directed towards a method for constructive modeling of articles. D'Urso discloses, in col. 7, lines 20-25, that CT scan data is obtained from an X Ray, MRI, MRA PET scanner, and is processed to produce two dimensional boundary images of a bony structure. In the Office Action, the Examiner acknowledges that D'Urso's constructive modeling method does not include obtaining tomographic image data by inverting a threshold value of the MRI measurement data to obtain threshold value inverting data, and extracting a bone region from the threshold value inverting data. However, in the rejection of claim 2, the Examiner asserts that Toth teaches this feature. Applicants respectfully disagree.

Toth is directed towards a method for modulating the x-ray power of an imaging system such as a CT to maintain a desired image noise in the imaging system. Toth discloses, in col. 5, lines 12-40, that scout image data processing steps are inverted to generate projection data, and that scout image data is clipped or zeroed if it falls below a threshold attenuation value.

Applicants respectfully submit that the subject matter of Toth is directed to art that is non-analogous to that of D'Urso (i.e., modeling of articles), and thus one of ordinary skill in the art would not be motivated to combine the teachings of the two references.

Further, Applicants submit that Toth does not disclose or suggest that the data inversion is carried out for obtaining a tomographic image, like Applicants' claimed invention, nor does Toth disclose or suggest that the threshold attenuation value is a MRI measurement data threshold value, as is taught by Applicants' instant invention.

Thus, Applicants respectfully submit that the combination of D'Urso and Toth, asserted by the Examiner, fails to disclose or suggest a method for modeling an implant in which tomographic image data is obtained by inverting a threshold value of MRI measurement data to obtain threshold value inverting data, and extracting a bone region from the threshold value inverting data, as recited in independent claim 1.

For at least these reasons, Applicants respectfully submit that the rejection of independent claim 1 is improper, and respectfully request withdrawal thereof.

Dependent claims 3-12 and 14-20 are also submitted to be in condition for allowance for at least the reasons set forth above with respect to claim 1.

In the Office Action, the Examiner rejected claim 12 under 35 U.S.C. § 103(a) as being unpatentable over D'Urso in view of Barlow et al. (U.S. Patent No. 6,540,784). Applicants respectfully traverse the rejection for at least the following reasons.

Applicants respectfully submit that Barlow fails to overcome the above-noted deficiencies of D'Urso and Toth. That is, Barlow fails to disclose or suggest a method for modeling an implant in which tomographic image data is obtained by inverting a threshold value of MRI measurement data to obtain threshold value inverting data, and extracting a bone region from the threshold value inverting data, as recited in independent claim 1.

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Thus, Applicants respectfully submit that dependent claim 12 is in condition for allowance for at least the reasons set forth above with respect to independent claim 1.

Based on the above, it is respectfully submitted that this application is now in condition for allowance, and a Notice of Allowance is respectfully requested.

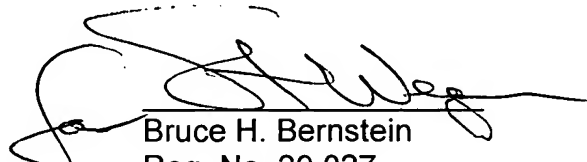
SUMMARY AND CONCLUSION

Entry and consideration of the present amendment, reconsideration of the outstanding Office Action, and allowance of the present application and all of the claims therein are respectfully requested and now believed to be appropriate. Applicants have made a sincere effort to place the present invention in condition for allowance and believe that they have now done so.

Any amendments to the claims which have been made in this amendment, and which have not been specifically noted to overcome a rejection based upon the prior art, should be considered to have been made for a purpose unrelated to patentability, and no estoppel should be deemed to attach thereto.

Should the Examiner have any questions or comments regarding this response, or the present application, the Examiner is invited to contact the undersigned at the below-listed telephone number.

Respectfully submitted,  
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